

CLAIMS

What is claimed is:

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1. A display unit comprising:

a matrix of independently controllable pixels comprising m rows and n columns of discrete pixels, said matrix for generating an image therein by light modulation and wherein said image is representative of information stored in a frame buffer memory; and

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a pixel border having a predetermined width, said pixel border surrounding said matrix of independently controllable discrete pixels and comprising dummy pixels, wherein each dummy pixel is analogous to a pixel of said matrix but without containing an active element.

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2. A display unit as described in Claim 1 and further comprising a back lighting element for illuminating said matrix and said pixel border.

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3. A display unit as described in Claim 2 wherein each pixel of said matrix comprises: a red subpixel having a first active element; a green subpixel having a second active element; and a blue subpixel having a third active element.

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4. A display unit as described in Claim 3 wherein each dummy pixel of said matrix comprises: a red sub-dummy-pixel; a green sub-dummy-pixel; and a blue sub-dummy-pixel.

5. A display unit as described in Claim 1 wherein said predetermined width is two pixels.

5 6. A display unit as described in Claim 1 wherein said matrix comprises 160 rows and 160 columns of discrete pixels.

7. A display unit as described in Claim 1 wherein said matrix is fabricated using thin film transistor liquid crystal display technology.

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8. A portable electronic device comprising:

a processor coupled to a bus;

a memory unit coupled to said bus;

a user input device coupled to said bus; and

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a display unit coupled to said bus and comprising:

a matrix of independently controllable pixels comprising m rows and n columns of discrete pixels, said matrix for generating an image therein by light modulation and wherein said image is representative of information stored in a frame buffer memory; and

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a pixel border having a predetermined width, said pixel border surrounding said matrix of independently controllable discrete pixels and comprising dummy pixels, wherein each dummy pixel is analogous to a pixel of said matrix but without containing an active element.

9. A portable electronic device as described in Claim 8 further comprising a back lighting element for illuminating said matrix and said pixel border.

5 10. A portable electronic device as described in Claim 9 wherein each pixel of said matrix comprises: a red subpixel having a first active element; a green subpixel having a second active element; and a blue subpixel having a third active element.

10 11. A portable electronic device as described in Claim 10 wherein each dummy pixel of said matrix comprises: a red sub-dummy-pixel; a green sub-dummy-pixel; and a blue sub-dummy-pixel.

15 12. A portable electronic device as described in Claim 8 wherein said predetermined width is two pixels.

13. A portable electronic device as described in Claim 8 wherein said matrix comprises 160 rows and 160 columns of discrete pixels.

20 14. A portable electronic device as described in Claim 7 wherein said matrix is fabricated using thin film transistor liquid crystal display technology.

15. A display unit comprising:  
a matrix of independently controllable pixels comprising m rows and n  
25 columns of discrete pixels, said matrix for generating an image therein by light

modulation and wherein said image is representative of information stored in a frame buffer memory and wherein each pixel of said matrix comprises a respective active element and respective filter elements;

- a pixel border having a predetermined width, said pixel border  
5 surrounding said matrix of independently controllable discrete pixels and comprising dummy pixels, wherein each dummy pixel comprises respective filter elements without an active element; and  
a back lighting element for illuminating said matrix and said pixel border.

10 16. A display unit as described in Claim 15 wherein said respective filter elements of each pixel of said matrix comprise: a red filter; a green filter; and a blue filter.

15 17. A display unit as described in Claim 16 wherein said respective filter elements of each dummy pixel of said matrix comprise: a red filter; a green filter; and a blue filter.

20 18. A display unit as described in Claim 15 wherein said predetermined width is two pixels.

19. A display unit as described in Claim 15 wherein said matrix comprises 160 rows and 160 columns of discrete pixels.

25 20. A display unit as described in Claim 15 wherein said matrix is fabricated using thin film transistor liquid crystal display technology.